Research Article

The Role of Community Capacity Development in Optimizing Assets as a Factor For Sustainable Livelihoods of the Bajo Tribe in the Tomini Bay Coast, Gorontalo

Mahludin H. Baruwadi[1]*, Fitri Hadi Yulia Akib[2], Mohammad Zubair Hippy[1], Iin Susilawati Lantu[4], Dewi Indrayani Hamin[5] and Siti Rahmatia Machieu[1]

[1]Agribisnis Study Program, Gorontalo State University, Indonesia; [2]Development Economics Study Program, Gorontalo State University, Indonesia; [3]Aquatic Resource Management Study Program, Gorontalo State University, Indonesia; [4]Management Study Program, Gorontalo State University, Indonesia

Abstract | The uniqueness of the Bajo tribe has attracted researchers from various disciplines to study this group. However, there has been limited exploration of their sustainable livelihoods, particularly in the context of social, economic, and environmental challenges. This study aims to: 1) describe the socio-economic characteristics of the Bajo tribe; 2) analyze the role of community capacity development in optimizing the use of various asset forms for sustainable livelihoods; and 3) investigate community capacity development links different asset forms and contributes to sustainable livelihoods. The research employed an explanatory sequential mixed methods design with a survey approach. Data collection involved questionnaires, in-depth interviews, and observations, encompassing a sample of 356 respondents. Data analysis utilized descriptive statistics and Structural Equation Modeling (SEM-PLS). The results indicate (1) the Bajo tribe in Tomini Bay largely relies on the sea for their livelihoods, with 72.75% engaged in fishing. The education level is low, with 68.26% having completed no higher than elementary school. Household expenditures show that 44.26% are allocated to food; (2) The community capacity development among the Bajo tribe is relatively strong, particularly in terms of community spirit, member commitment, problem-solving abilities, and resource access; (3) Sustainable livelihoods for the Bajo tribe are influenced by natural, social, financial, human, and physical assets, mediated by community capacity. Only natural and financial assets have a direct and significant impact on sustainable livelihoods, while social and human assets significant influence indirectly through community capacity. Physical assets do not significantly contribute to sustainable livelihoods. To encourage the sustainable livelihood of the Bajo Tribe, multi-sector collaboration is needed. The community needs to be active in training and education to increase community capacity and solidarity. Local governments need to improve basic infrastructure and expand access to capital and resources, while central governments need to develop sustainable policies and allocate specific budgets for community strengthening. NGOs are expected to provide assistance and advocacy for people's rights. Academics play a role in research and development of sustainability models and strategic collaborations, and the private sector is encouraged to contribute through investments and Corporate Social Responsibility programs that support sustainable community development.

Received | Nov 06 2024; **Accepted** | Jul 8, 2025; Published | December 30, 2025
***Correspondence** | Mahludin H. Baruwadi, Department of Fisheries Product Technology, Faculty of Marine Affairs and Fisheries Technology, Gorontalo State University, Indonesia. **Email:** mahludinbaruwadi@ung.ac.id
Citation | Baruwadi, M.H., F.H.Y. Akib, M.Z. Hippy, I.S. Lantu, D.I. Hamin and S.R. Machieu. 2025. The role of community capacity development in optimizing assets as a factor for sustainable livelihoods of the bajo tribe in the tomini bay coast, gorontalo. Sarhad Jurnal of Agriculture, 41(5): 359-374.
DOI | https://dx.doi.org/10.17582/journal.sja/2025/41.5.359.374
Keywords | Bajo tribe, Community, Capacity, Sustainable, Livelihoods, Assets

Introduction

The Tomini Bay Coast in Gorontalo Province is a coastal region rich in natural resources, particularly for the Bajo people, whose daily lives heavily depend on the sea. However, various environmental issues, including the decline in marine ecosystem quality, climate change, and socio-economic pressures, have threatened the sustainability of their livelihoods (Yaseen *et al*., 2023). Therefore, it is essential to understand how the Bajo tribe can manage their natural resources sustainably. The uniqueness of the Bajo tribe has prompted numerous researchers from various fields to examine their social and economic aspects (Muhammad, 2010; Wianti *et al*., 2012; Suryanegara and Nahib, 2015; Basri *et al*., 2017; Lahaji and Obie, 2020; Kobi and Hendra, 2020). These studies highlight the critical role of social and natural assets in supporting the sustainability of coastal communities. However, there has yet to be a comprehensive study that integrates various forms of assets (Hassan *et al*., 2024). Community capacity development emerges as a key topic in this study, as it enhances the community's ability to address challenges related to the efficient and sustainable management of resources.

The idea of sustainable livelihoods is becoming more widely recognized and discussed in development debates (Yassin *et al*., 2018). The concept of sustainable livelihoods has gained significant popularity and attention in development discussions, as it emphasizes creating long-term, resilient ways for communities to improve their quality of life while preserving resources for future generations. Livelihoods are a combination of the available resources, abilities, and actions needed to survive or make a living (Trinh *et al*., 2018; Wang *et al*., 2021; Kusumo *et al*., 2023). According to Chambers *et al*., (1989), sustainable livelihoods are achieved when individuals can access and utilize assets effectively to meet their basic needs and have the capacity to recover from stress or crises. Ellis (1999) adds that sustainable livelihoods involve diversifying income sources, allowing communities to avoid reliance on a single resource. In Indonesia, Suharto (2017) emphasizes that local wisdom and social assets play vital roles in supporting sustainable livelihoods, particularly in rural areas vulnerable to environmental and economic changes. Globally, Adger (2003) also highlights the importance of adapting to climate and environmental changes as an integral part of sustainable livelihoods.

The Bajo tribe is an ethnic group that traditionally inhabits the coasts and waters of several islands in Southeast Asia, particularly in Indonesia, Malaysia, and the Philippines (Rahman *et al*., 2023). Distinctive features of Bajo culture include their deep-seated traditions and skills in maritime navigation (Mukramin *et al*., 2023). Daily life for the Bajo people heavily relies on marine activities, with fishing, gathering marine products such as shellfish, oysters, and seaweed, and trading forming integral parts of their livelihoods (Maulidyna *et al*., 2021). They possess extensive knowledge and expertise in navigation, enabling them to explore vast waters in search of fish and other marine resources (Hukmiah, 2020). Their traditional boats, such as the "lepa-lepa" and palari", symbolize their craftsmanship and cultural identity (Obie and Lahaji, 2020).

The Bajo people's lives are intricately connected to the sea, which is central to their daily activities (Susilowati, 2017). They reside in stilt houses that allow them to remain close to the water (Rahim *et al*., 2019). The Bajo tribe adheres to an animistic belief system that honors sea spirits and encompasses rituals associated with marine life (Samudin *et al*., 2019). The Bajo language reflects their close relationship with the sea and coastal life, featuring vocabulary related to maritime activities and the surrounding environment, despite the absence of a formal writing system (Rahman, 2018; Apriantoro *et al*., 2023).

According to Chaskin (2001), community capacity encompasses the combined influence of community characteristics, resources, and relationships in addressing internal and external challenges. Brown and Harris, (2014) emphasize that community capacity is not static; it evolves alongside the community's ability to engage in decision-making processes, leverage assets, and foster local leadership. Bebbington (1999); Chamaratana *et al*., (2018) highlights that community capacity involves the ability of communities to access and utilize these various forms of assets to achieve sustainable development goals. Suharto (2017) underscores the importance of human assets, such as knowledge and skills, in enhancing community resilience in the face of development challenges.

Previous research on the Bajo tribe, such as that conducted by Muhammad (2010) and Mukramin

et al., (2023), has highlighted the social and cultural aspects of this group, particularly their traditional way of life that depends on the sea. These studies found that the Bajo people possess unique local wisdom in managing marine resources. However, they often overlook the role of interactions among various asset forms-such as natural, human, financial, social, and physical assets-in achieving sustainable livelihoods. Furthermore, there has been limited exploration of a more comprehensive approach to community capacity development as a driver for optimizing these assets. This study addresses these gaps by analyzing how the integration of various asset forms, through community capacity development, can support the sustainable livelihoods of the Bajo tribe in Tomini Bay.

This study aims to: 1) describe the socio-economic characteristics of the Bajo tribe in the Tomini Bay Coast, Gorontalo Province; 2) analyze the role of community capacity development in optimizing the use of natural, social, financial, human, and physical assets for sustainable livelihoods; and 3) examine how community capacity development serves as a link among these asset forms to enhance the livelihoods of the Bajo tribe. Based on these objectives, the study is expected to provide a deeper understanding of the complex interactions among different asset forms that influence sustainable livelihoods in the Tomini Bay Coast. Additionally, this research will offer policy recommendations to support more efficient and sustainable natural resource management for the Bajo tribe's livelihoods.

This study tests the hypothesis that natural, social, financial, human, and physical assets significantly influence the sustainable livelihoods of the Bajo tribe, both directly and indirectly through the mediation of community capacity development. By testing this hypothesis, the study provides empirical evidence of the importance of community capacity development as a key factor in resource management for the sustainable livelihoods of the Bajo in the Tomini Bay Coast. A quantitative methodology employing a survey approach and an explanatory sequential mixed methods design is utilized for this research.

Meterials and Methods

This study focuses on community capacity development in managing sustainable livelihoods among the Bajo tribe in the Tomini Bay Coast of Gorontalo Province. The research targets the Bajo tribe residing in Torosiaje Laut Village, Popayato District, Pohuwato Regency, and Bajo Village in Tilamuta District, Boalemo Regency, with a total population of 3,219 individuals. A quantitative method employing a survey approach was utilized, incorporating an explanatory sequential mixed methods design. The quantitative survey method collects numerical data from a large sample to identify patterns or relationships among variables. This method was used to measure the influence of natural, social, human, physical, and financial assets on the community capacity development of the Bajo people.

Sustainable livelihoods can be categorized based on several key variables and aspects that maintain the balance among economic, social, and environmental factors. Chambers and Conway, (1992), as cited in Butt *et al.*, (2015), identify the main variables of sustainable livelihoods as access to assets (natural, social, human, physical, and financial) and the ability to adapt to external pressures. Ellis (1999) further emphasizes that income diversification is a crucial element of sustainable livelihoods, encompassing earnings from agriculture, fisheries, and non-agricultural sectors. Bebbington (1999) highlights five important forms of assets that support sustainable livelihoods: natural assets (natural resources), human assets (skills and knowledge), social assets (networks and relationships), physical assets (infrastructure), and financial assets (income and savings). Each of these asset forms has indicators such as accessibility, quality, and the community's ability to utilize them efficiently. The combination of these five forms of assets determines the extent to which a community can sustain its livelihoods without harming the environment or compromising future generations. Natalia and Maulidya, (2023) propose four indicators for assessing sustainable livelihoods: sustainability and vulnerability in the social aspect, sustainability and vulnerability in the economic aspect, sustainability and vulnerability in the ecological aspect and sustainability and vulnerability in the good management (governance) in sustainable livelihoods.

Community capacity can be categorized based on various variables and aspects that influence a community's ability to manage resources (Zikri, 2017). Lyson *et al.*, (1993) identify five main forms of assets as crucial variables: natural, social,

human, financial, and physical assets. Natural assets encompass environmental resources that the community can utilize. Wijayanti *et al*., (2016) propose that indicators of natural assets include natural productivity, water resources, biodiversity, and marine biological resources. Social assets refer to the networks and relationships among community members that strengthen cooperation. Indicators of social assets consist of community organizations, local wisdom, participation, mutual assistance, kinship ties, supportive relationships, and trust (Alfiady *et al*., 2021; Kayadoe *et al*., 2019; Ibrahim *et al*., 2020; Wibowo *et al*., 2021). Financial assets relate to access to economic resources, including income and funds available for community activities. Putra and Suprianto, (2020) outline indicators of financial assets, including income, expenditures, savings, debts, and financial assistance.

Human assets are crucial for building productive, innovative, and inclusive communities. Key components that affect human asset capacity include education, training, health, and social relations, which ultimately support community development and overall well-being. According to Almira and Wiagustini (2021), indicators of human assets can be assessed through education level, health, experience, knowledge and skills, personal character, and motivation. Physical assets in community capacity refer to tangible resources used by the community to support sustainable social, economic, and environmental activities. Indicators for identifying physical assets include facilities, infrastructure, work equipment, and transportation resources (Baiquini, 2007). Each form of asset outlined above plays a crucial role in determining the level of community capacity (Lyson *et al*., 1993). Strengthening these five forms of assets is essential for achieving sustainable livelihoods.

The explanatory sequential mixed methods design enhances quantitative results with qualitative data. While the survey approach provides an overview and statistical analysis of variable relationships, qualitative data enriches the interpretation of results by revealing contexts, perceptions, and experiences that cannot be explained statistically. Data were collected through questionnaires, in-depth interviews, and observations, with a sample size determined using Slovin's formula, resulting in 356 respondents. Data collection involved structured questionnaires, interviews, and Focus Group Discussions (FGDs).

The Structural Equation Modeling (SEM-PLS) techniques were used to analyze the relationships among the variables: natural asset (X1), social asset (X2), financial asset (X3), human asset (X4), and physical asset (X5) in relation to community capacity development (Z) and its impact on sustainable livelihood governance (Y). The data description for each variable is based on score interpretation criteria derived from respondents' answers, with a maximum score of 5 (100%) and a minimum score of 1 (20%), resulting in a scale range of (5-1)/5 = 1 (16.00%). According to the criteria used, Narimawatin (2007) provides a description of the achievements for each variable affecting community capacity in the sustainable livelihoods of the Bajo tribe (Table 1).

Table 1: *Variable score criteria*

No	Scoring percentage	Criteria
1	20.01% – 36.00%	Very poor
2	36.01% – 52.00%	Poor
3	52.01% – 68.00%	Fair
4	68.01% – 84.00%	Good
5	84.01%- 100.00%	Very good

Source: Processed data, 2024

Based on the table above, the score are calculated using the following equation:

$$\%\ Statement\ Score = \frac{Actual\ Score}{Ideal\ Score}\ x100\%$$

The Actual Score is the total score of all respondents' answers, while the Ideal Score is the maximum score if all respondents select the highest-rated answers. The structural equations and structural model (Figure 1) of this study are as follows

$$Z = Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + e$$

$$Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \beta_6Z + e$$

where :
Z = Community Capacity
Y = Sustainable Livelihoods
X_1 = Natural Asset
X_2 = Social Asset
X_3 = Financial Asset
X_4 = Human Asset
X_5 = Physical Asset
α = Constant
$\beta_1 ... \beta_5$ = Regression Coefficient

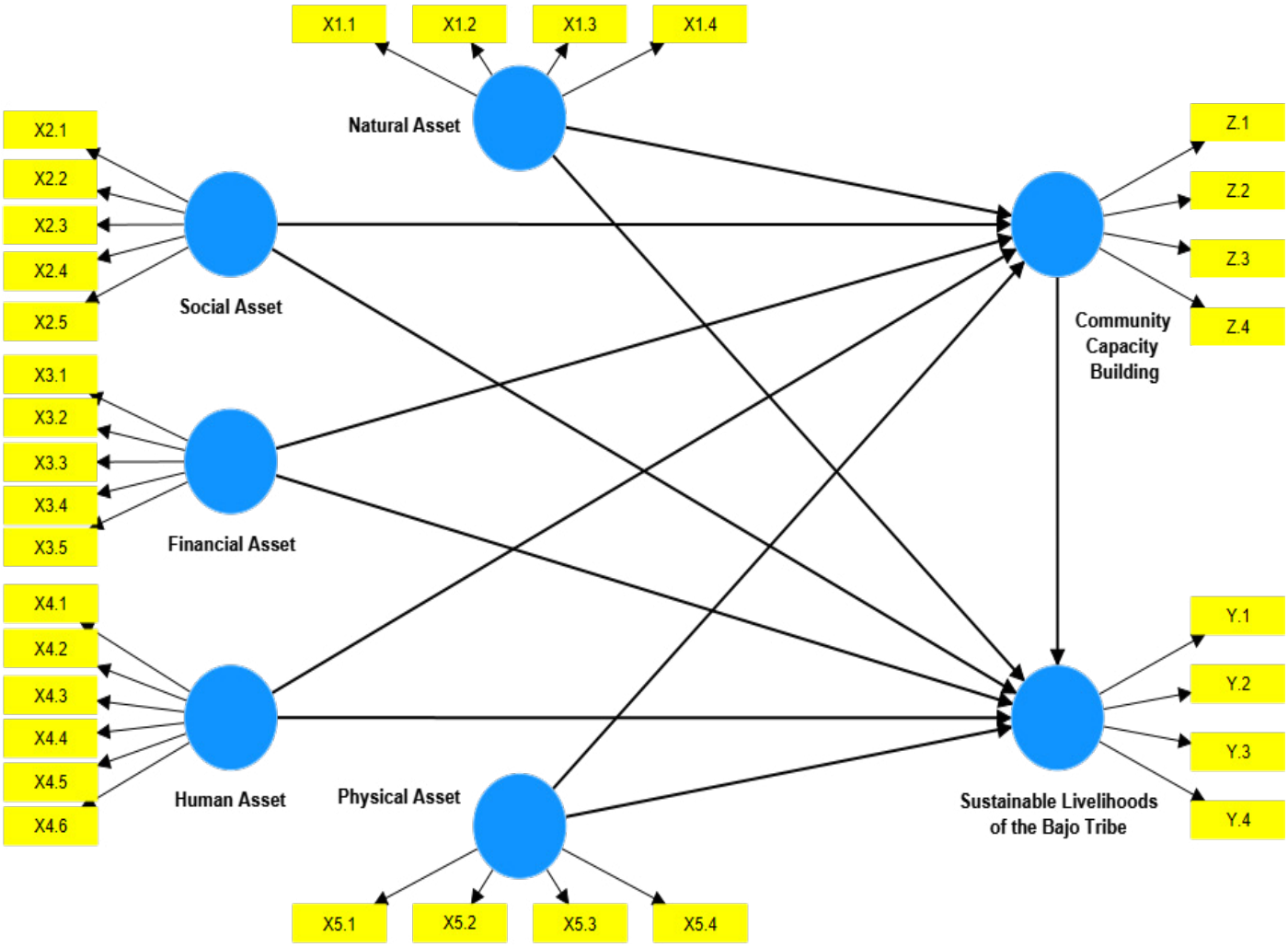

Figure 1: *Structural model of community capacity development in optimizing asset as a factor for sustainable livelihoods*

Results and Disscusion

Description of the bajo tribe in the tomini bay area, gorontalo

The Bajo tribe in the Tomini Bay Coast of Gorontalo can be characterized based on the respondents selected as the research sample. The study sample comprises 356 respondents, with 178 from Torosiaje Village and 178 from Bajo Village. Descriptions of the average age, education level, dependency ratio, primary occupation, tribal status, and religion/beliefs are presented in Table 2.

The general profile of the respondents indicates that the Bajo tribe inhabiting the Tomini Bay Coast of Gorontalo has an average age of 39.87 years, with 68.26% having attained only an elementary school education. Conversely, 7.30% of respondents have achieved higher education, holding bachelor's degrees. The primary occupation of the Bajo tribe in this area is predominantly fishing, comprising 72.75% of respondents, and they exhibit an average dependency ratio of 3.85 individuals. The low education levels of the Bajo tribe, combined with the majority working as fishermen, pose significant barriers to diversifying their occupations. This finding aligns with the study conducted by Mukramin *et al.*, (2023), which states that low education levels directly impact limited access to more stable employment and other economic opportunities outside the fishing sector.

In response to these challenges, the local government, in collaboration with private entities, is promoting tourism development based on local wisdom, as exemplified by initiatives in Torosiaje Laut Village. The Bajo tourism destination in Torosiaje represents one effort aimed at diversifying income sources beyond the fishing sector. A study by Basri *et al.*, (2017) found that the Bajo tribe in Sulawesi faces similar challenges, including overfishing, climate change, and declining environmental quality, necessitating a reduction in dependence on the fishing sector.

Another aspect that illustrates the economic situation

of the Bajo tribe in the Tomini Bay Coast is household economics. Household economics can reflect the total income received by all members of Bajo households from various sources, which can then be used for consumption, investment, or savings, as well as household expenditures over a one-year period. The household income and expenditure data for the Bajo tribe in the Tomini Bay Coast are presented in Table 3. The data indicate that fishing yields are the primary source of income, with an average household generating an annual income of Rp. 32,814,327, or Rp. 2,734,530 per month. This figure is not significantly different from the income of the Bajo tribe in Southeast Sulawesi, which ranges from Rp. 1,500,000 to Rp. 2,500,000 per month (Lorensia *et al.*, 2021).

Table 2: *Description of the bajo tribe in the tomini bay coast, gorontalo*

No	Respondents profile	Achievement	Percentage (%)
1	Age (Year)	39.87 Years	
2	Education (Level)		
	No formal education	39	10.96
	Did not complete elementary school	10	2.81
	Elementary school	194	54.49
	Junior high school	39	10.96
	Senior high school	49	13.76
	Higher education	26	7.30
3	Dependency Ratio (person)	3,85	
4	Primary Occupation		
	- Fishing	259	72.75
	- Farming	3	0.84
	- Enterprises	13	3.65
	- Government Official/Indonesian National Army	32	8.99
	- Transportation services	13	3.65
	- Others	36	10.11
5	Status		
	- Bajo natives	301	84.55
	- Marriage	39	10.96
	-Immigrants	16	4.49
6	Religion		
	- Islam	356	100.00
	- Others	0	0.00

Source: Processed data (2024)

Other sources of household income include trading, small and medium-sized enterprises (SMEs), transportation services, and tourism support services, contributing approximately Rp. 8,299,999. The total household income of the Bajo tribe in the Tomini Bay Coast from various sources amounts to Rp. 41,114,326 per year, or Rp. 3,426,195 per month. This income level is comparable to that of the Bajo tribe in Wakatobi, where Nuraini (2016) reported incomes ranging from Rp. 3,000,000 to Rp. 5,000,000, derived from both the fishing sector and diversified enterprises. The findings of this study suggest that diversifying income sources could enhance the household income of the Bajo tribe, thereby ensuring the sustainability of their economic livelihoods.

Based on Table 3, the household expenditures of the Bajo tribe are primarily allocated to food needs, which account for 39.57% of total spending. The largest portion of household expenditures is on rice (18.62%), followed by side dishes (14.66%) and tobacco (16.80%). This indicates that food consumption and smoking habits are high priorities within the households of the Bajo tribe in the Tomini Bay Coast. Additionally, expenditures for education and health account for 8.57% and 2.11%, respectively, suggesting that, although important, spending on education and health remains relatively low compared to basic necessities. This pattern of expenditure among the Bajo tribe is nearly identical to that of other Bajo groups. Wan Hassan and Peters (2020) studied the Bajo tribe in Semporna, Sabah, Malaysia, found that household expenditures were predominantly driven by food needs and operational costs related to fishing.

Community capacity

The achievements of the capacity development variables of the Bajo tribe in the Tomini Bay Coast, Gorontalo, are presented in Table 4.

Similarly, a study by Maulidyna *et al.*, (2020) in the Philippines indicated that household expenditures among the Bajo tribe in that region also primarily focused on basic needs, such as food and fishing operational costs. Comparisons with studies conducted elsewhere reveal that the spending patterns of the Bajo tribe exhibit similar characteristics.

Table 3: *Household economy of the bajo tribe in the tomini bay coast, gorontalo*

No	Description	Amount (Rp)	Percentage (%)	Per capita (Rp)
Income				
1	Primary	32,814,327	79.81	6,765,840
2	Secondary	8,299,999	20.19	1,711,340
Total Income		41,114,326	100.00	8,477,180
Expenditure				
1	- Rice	5,386,581.82	18.62	1,110,635.43
2	- Side dishes	4,240,363.64	14.66	874,301.78
3	- Soap	789,818.18	2.73	162,849.11
4	- Kerosene/gas	567,490.91	1.96	117,008.43
5	- Salt	299,127.27	1.03	61,675.73
6	- Sugar	842,181.82	2.91	173,645.74
7	- Coffee	678,545.45	2.35	139,906.28
8	Cigarette/tobacco	4,861,090.91	16.80	1,002,286.79
9	Children's education	2,479,636.36	8.57	511,265.23
10	Health	611,778.18	2.11	126,139.83
11	Clothing	1,222,681.82	4.23	252,099.34
12	House renovation	575,979.80	1.99	118,758.72
13	Recreation	1,266,311.87	4.38	261,095.23
14	Savings	2,305,151.52	7.97	475,288.97
15	Goods purchase	1,402,818.18	4.85	289,240.86
16	Electricity	1,377,290.91	4.76	283,977.51
17	Property tax	17,727.27	0.06	3,655.11
18	Water bills	6,000.00	0.02	1,237.11
Total Expenditure		28,930,575.91		5,965,067.20

Source : Processed data (2024)

Table 4: *Description of scores for community capacity development variables of the bajo tribe in the tomini bay coast, gorontalo*

No	Indicators	Indicator scores			Criteria
		Actual	Ideal	Scores	
1	Community feeling	7,081	8,900	79.56%	Fairly Good
2	Commitment among community members	7,160	8,900	80.45%	Fairly Good
3	Problem solving skills	7,234	8,900	81.28%	Fairly Good
4	Access to resources	7,093	8,900	79.70%	Fairly Good
Average community capacity development score (Z)		7,142	8,900	80.25%	Fairly Good

Source: Processed data, 2024

The scores for community capacity development among the Bajo tribe, based on key indicators, indicate a rating of "Fairly Good". The indicator for community feeling received a score of 79.56%, while the level of commitment among community members reached 80.45%. The ability to solve problems achieved a score of 81.28%, which is the highest among the indicators. Access to resources also fell within the "Fairly Good" category, with a score of 79.70%. Overall, the average score for community capacity development of the Bajo tribe in the Tomini Bay Coast, Gorontalo, is 80.25%. This achievement suggests that the Bajo tribe possesses a reasonably good level of capacity for sustainable livelihoods.

The results of the community capacity scores for the Bajo tribe in the Tomini Bay Coast, Gorontalo, indicate that the community capacity variables measured using five forms of assets-natural (X1), social (X2), financial (X3), human (X4), and physical (X5)-achieve scores classified as "Fair" to "Good". The average scores for each type of asset demonstrate the community's performance: natural assets at 83.55%, social assets at 84.27%, financial assets at 83.26%, human assets at 83.84%, and physical assets at 83.94%.

Table 5: *Description of the achievements of variables influencing community capacity of the bajo tribe in the tomini bay coast, gorontalo*

No	Variable	Indicators	Indicator scores			Criteria
			Actual	Ideal	%	
1	Natural asset (X_1)	Natural productivity	5,981	7,120	84.003	Fairly Good
		Water resources	5,911	7,120	83.020	Fairly Good
		Diversity of biological resources	5,915	7,120	83.076	Fairly Good
		Marine biological resource products	4,500	5,340	84.270	Good
	Average natural asset		5,577	6,675	83.551	Fairly Good
2	Social asset (X_2)	Community organisation	4,479	5,340	83.876	Fairly Good
		Local wisdom	4,452	5,340	83.371	Fairly Good
		Participation & mutual cooperation	4,484	5,340	83.970	Fairly Good
		Kinship relations	4,553	5,340	85.262	Good
		Mutual support relationship/trust	4,530	5,340	84.831	Good
	Average social asset		4,500	5,340	84.270	Good
3	Financial asset (X_3)	Income	4,477	5,340	83.839	Fairly Good
		Expenditure	4,478	5,340	83.858	Fairly Good
		Savings	4,454	5,340	83.408	Fairly Good
		Debts-receivables	4,457	5,340	83.464	Fairly Good
		Financial assisstance	4,362	5,340	81.685	Fairly Good
	Average financial asset		4,446	5,340	83.258	Fairly Good
4	Human asset (X_4)	Education	3,009	3,560	84.522	Good
		Health	3,006	3,560	84.438	Good
		Experience	2,994	3,560	84.101	Good
		Knowledge and skills	4,491	5,340	84.101	Good
		Personal character	4,441	5,340	83.165	Fairly Good
		Motivation	4,446	5,340	83.258	Fairly Good
	Average human asset		3,731	4,450	83.843	Fairly Good
5	Physical asset (X_5)	Facilities and infrastructure	6,040	7,120	84.831	Good
		Work equipment	6,008	7,120	84.382	Good
		Infrastructure mobilization	5,821	7,120	81.756	Fairly Good
		Transportation	4,542	5,340	85.056	Good
	Average physical asset		5,603	6,675	83.940	Fairly Good

Source: Processed data (2024)

These findings suggest that while the capacity of the Bajo tribe is adequate for sustainable livelihoods, there are opportunities for improvement in several aspects, particularly in infrastructure mobilization (physical assets) and financial assistance (financial assets), which recorded lower scores. Specifically, the social assets of the Bajo tribe fall into the "Good" category, while human assets are classified as "Fair". This indicates a need for interventions to enhance human assets within the Bajo tribe to support sustainable livelihoods.

The description of the score achievements for the variables influencing community capacity development of the Bajo tribe in the Tomini Bay Coast, Gorontalo, is presented in Table 5. These variables include natural asset, social asset, financial asset, human asset, and physical asset.

The results of this study can be compared with similar research, such as that conducted by Brown and Harris (2014), which emphasizes the importance of enhancing community capacity through strengthening

social and human assets. In the context of the Bajo tribe in the Tomini Bay Coast, access to these various forms of assets is crucial for the economic and social sustainability of the community. The findings of Bebbington (1999) support this conclusion, stating that social and human assets play key roles in building resilience and the capacity of communities to face external challenges, particularly in managing natural resources. Another study in Indonesia by Suharto (2017) revealed that social assets, such as networks and trust, are primary determinants in the sustainable management of natural resources in rural communities, which aligns with the social asset scores achieved by the Bajo tribe in Tomini Bay.

Based on the results of this study and previous research, it is evident that enhancing community capacity should focus on strengthening human and social assets. Human assets, which encompass education, skills, and health, have proven essential in building more adaptive and innovative communities. This is further supported by the study conducted by Threesha and Budiarti, (2021), which indicates that human assets not only influence individual capacity but also the collective competitiveness of the community.

Overall, this study demonstrates that the capacity of the Bajo tribe is at an adequate level; however, there remains a need for improvement, particularly in areas such as access to financial resources and the enhancement of physical assets that support infrastructure and public facilities. Moreover, there is a critical need to increase human assets through education and training to foster sustainable livelihoods for the Bajo tribe in the Tomini Bay Coast of Gorontalo.

Factors influencing sustainable livelihoods

The description of sustainable livelihood governance for the Bajo tribe is based on several indicators, namely social, economic, environmental, and good governance. The results of the governance scores for the sustainable livelihoods of the Bajo in the Tomini Bay Coast of Gorontalo are presented in Table 6.

The sustainable livelihood scores of the Bajo tribe in Tomini Bay, Gorontalo, reflect a balance among social, economic, environmental, and governance aspects, with an overall average score of 79.27%, categorized as "Fairly Good". This indicates that the Bajo tribe in the Tomini Bay Coast is capable of maintaining a balance in their livelihoods, although interventions are needed to enhance scores in the economic and environmental aspects. Such improvements can be achieved through education and training, which would enable the Bajo to better face economic and environmental challenges, especially given their reliance on local resources for household income. Education and training can also raise awareness among the Bajo about the importance of preserving the environment for the sustainability of their community's livelihoods.

Table 6: *Description of Sustainable Livelihood Governance for the Bajo Tribe in Tomini Bay, Gorontalo*

No	Indicators	Indicator scores			Criteria
		Actual	Ideal	Scores	
1	Social	11,424	14,240	80.22%	Fairly good
2	Economy	11,187	14,240	78.56%	Fairly good
3	Environment	11,174	14,240	78.47%	Fairly good
4	Good governance	8,545	10,680	80.01%	Fairly good
Average sustainable livelihoods scores (Y)		10,583	13,350	79.27%	Fairly good

Source: Processed data, 2024

These findings align with Suharto's (2017) research, which concluded that rural communities relying on local natural resources for income face similar economic and environmental challenges, despite possessing strong social assets. Studies in Kenya have shown that sustainable livelihoods are often influenced by the availability of social assets and the community's ability to adapt to climate and economic changes (Ellis, 1999). Maintaining a balance in livelihoods is crucial; globally, Adger (2003) emphasizes the importance of adapting to environmental changes as an integral part of sustainable livelihoods. This perspective is particularly relevant for the Bajo tribe, considering their dependence on marine resources and coastal environments.

Based on the scores achieved for community capacity development, sustainable livelihood governance, and the influencing variables, a Structural Equation Modeling (SEM) analysis was conducted. Following the statistical assumptions test for the model used, the analysis results regarding the role of community capacity development in optimizing assets as a factor

for sustainable livelihoods among the Bajo tribe in Tomini Bay, Gorontalo Province, are presented in the following equation:

$$Z = 0.293X_1 + 0.239X_2 + 0.134X_3 + 0.301X_4 + 0.050X_5 + ei$$

$$Y = 0.394X1 - 0.124X2 + 0.232X3 - 0.097X4 - 0.008X5 + 0.495Z + ei$$

The detailed relationships between variables in the model above are depicted in a path diagram as presented in Figure 2.

Based on the analysis results, both direct and indirect effects of the variables influencing capacity development and sustainable livelihoods among the Bajo tribe were identified. These effects were determined using t-test statistic values and p-values to assess the significance of the relationships. Conversely, the indirect effect occurs when the influence of one variable on sustainable livelihoods is mediated by the community capacity development variable. The direct effects of the variables on the sustainable livelihoods of the Bajo tribe are presented in Table 7.

The direct influence of variables on community capacity and sustainable livelihoods reveals significant results for several factors. Natural assets significantly affect community capacity, with a t-value of 4.700 and a p-value of 0.000, as well as sustainable livelihoods (t = 4.598; p = 0.000). Social assets also significantly influence community capacity (t = 3.764; p = 0.000), but do not have a significant impact on sustainable livelihoods (t = -1.467; p = 0.143). Financial assets demonstrate a significant effect on both community capacity (t = 3.012; p = 0.003) and sustainable livelihoods (t = 3.222; p = 0.001). Human assets are significant for community capacity (t = 4.491; p = 0.000), but not for sustainable livelihoods (t = -1.028; p = 0.304). Physical assets show no significant influence on either variable. Notably, community capacity itself is significant for sustainable livelihoods (t = 4.278; p = 0.000).

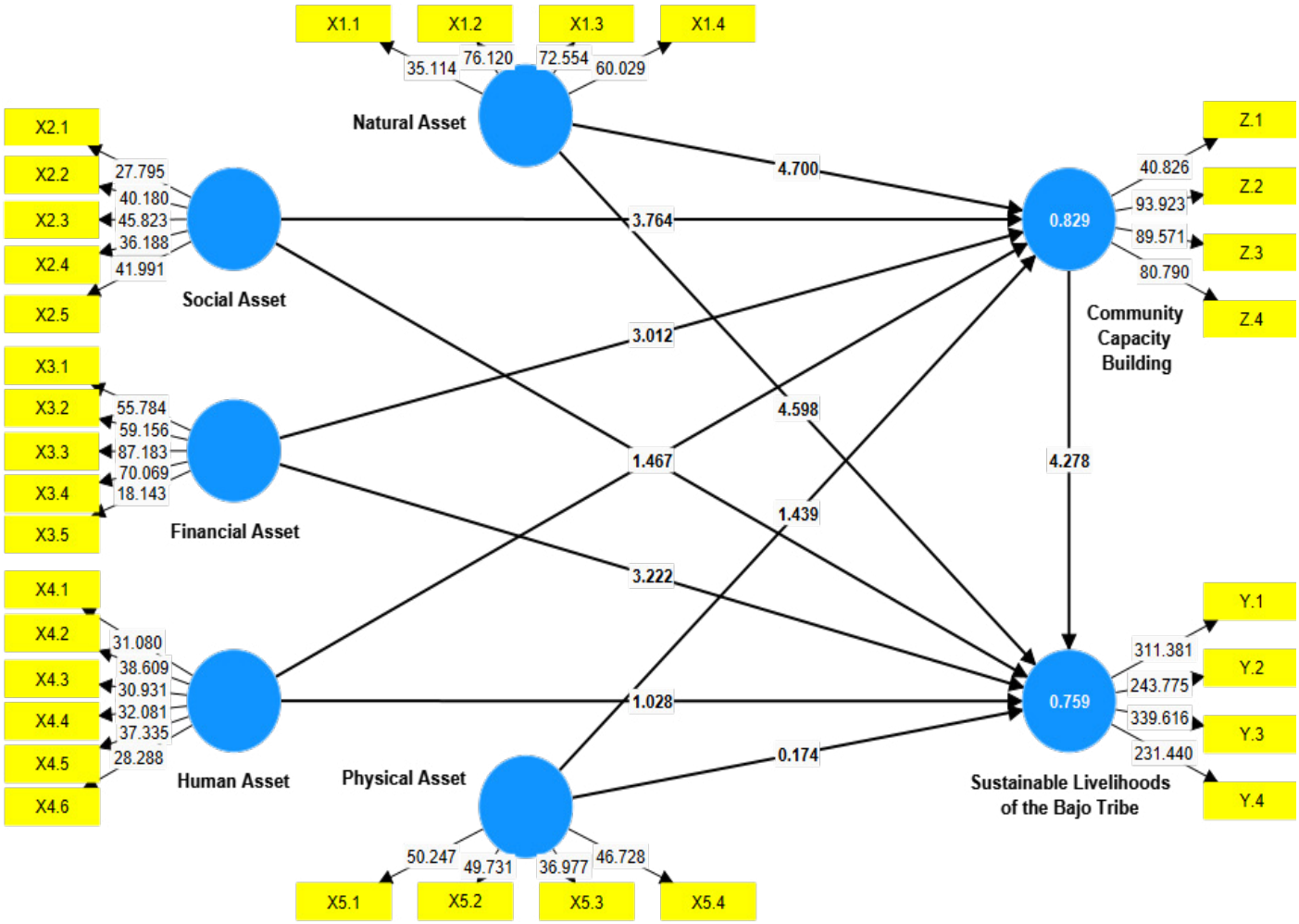

Figure 2: *Path diagram of community capacity development in optimizing asset as a factor for sustainable livelihoods of the bajo tribe in the tomini bay coast, gorontalo*

Table 7: *Direct influence of independent variables on community development and sustainable livelihoods of the bajo tribe in the tomini bay coast, gorontalo*

No	Influence	$t_{\text{-Statistic}}$	$P_{\text{-Value}}$
1	Natural asset -> Community capacity building	4.700	0.000**
2	Social asset -> Community capacity building	3.764	0.000**
3	Financial asset -> Community capacity building	3.012	0.003**
4	Human asset -> Community capacity building	4.491	0.000**
5	Physical asset -> Community capacity building	1.439	0.150^{ns}
6	Natural asset -> Sustainable livelihoods	4.598	0.000**
7	Social asset -> Sustainable livelihoods	-1.467	0.143^{ns}
8	Financial asset -> Sustainable livelihoods	3.222	0.001**
9	Human asset -> Sustainable livelihoods	-1.028	0.304^{ns}
10	Physical asset -> Sustainable livelihoods	-0.174	0.862^{ns}
11	Community capacity -> Sustainable livelihoods	4.278	0.000**

^{ns} Not significant
* Significant at the 0.05 level (2-tailed).
**Significant at the 0.01 level (2-tailed).

Source: Processed data, 2024

Table 8: *Indirect effects of independent variables on sustainable livelihoods through community capacity development of the bajo tribe in the tomini bay coast, gorontalo*

No	Influence	$t_{\text{Statistic}}$	$P\text{-}_{\text{Value}}$
1	Natural asset -> Community capacity building -> Sustainable livelihoods	3.461	0.001**
2	Social asset -> Community capacity building -> Sustainable livelihoods	2.801	0.005**
3	Financial asset -> Community capacity building -> Sustainable livelihoods	2.580	0.010**
4	Human asset -> Community capacity building -> Sustainable livelihoods	3.207	0.001**
5	Physical asset -> Community capacity building -> Sustainable livelihoods	1.327	0.184^{ns}

^{ns} not significant
* Significant at the 0.05 level (2-tailed).
**Significant at the 0.01 level (2-tailed).

Source: Processed data, 2024

The indirect effects of various assets on the community capacity development variable (the mediating variable), which ultimately influences the sustainable livelihoods of the Bajo tribe, are presented in Table 8.

The indirect effects of the variables on sustainable livelihoods through community capacity reveal statistically significant results. Natural assets exhibit a significant indirect effect, with a t-value of 3.461 and a p-value of 0.001. Social assets also contribute significantly, presenting a t-value of 2.801 and a p-value of 0.005. Financial assets demonstrate a similar influence, with a t-value of 2.580 and a p-value of 0.010. The impact of human assets on sustainable livelihoods through community capacity is likewise significant, with a t-value of 3.207 and a p-value of 0.001. However, physical assets do not demonstrate a significant effect, indicated by a t-value of 1.327 and a p-value of 0.184. These findings suggest that all forms of assets, except for physical assets, significantly impact the sustainable livelihoods of the Bajo tribe through the development of community capacity.

Overall, this study illustrates that the socio-economic characteristics of the Bajo tribe in the Tomini Bay Coast include a workforce in which 72.73% are employed as fishermen, a predominant educational level of elementary school (57.28%), and an average monthly income of 2.73 million rupiah. Monthly household expenditures allocate 39.57% to food needs. This scenario indicates that the Bajo tribe faces significant economic challenges due to their heavy reliance on local resources, particularly fishing, which is highly susceptible to overfishing, climate change,

and declining environmental quality. Therefore, comprehensive policies are essential to create alternative business opportunities for the Bajo tribe to ensure that their household income does not rely solely on fish catches.

The capacity of the Bajo tribe in the Tomini Bay Coast falls within the "fairly good" category, suggesting that the community possesses a reasonable level of capacity for sustainable livelihoods. Analyzing the influencing variables-natural assets, social assets, financial assets, human assets, and physical assets-reveals a clear need for interventions aimed at enhancing human assets. This finding aligns with the socio-economic characteristics of the Bajo, who typically exhibit low educational attainment and a heavy dependence on fish catches for their income.

The study results indicate that governance of sustainable livelihoods among the Bajo tribe in the Tomini Bay Coast is relatively robust. However, to achieve more sustainable livelihoods, comprehensive interventions are necessary. Economic diversification programs should be prioritized to mitigate dependence on fishing. Such initiatives may include the development of ecologically based tourism, environmentally friendly marine cultivation, enhancement of the value of fishery products, and promotion of local raw material-based small and medium enterprises (SMEs). Additionally, government investment in physical infrastructure is essential to facilitate market access and economic mobility for the Bajo tribe, thereby ensuring the sustainability of their livelihoods.

Findings from the SEM analysis indicate that only natural assets and financial assets exert a significant positive direct impact on the sustainable livelihoods of the Bajo tribe. However, when mediated by community capacity, natural assets, social assets, financial assets, and human assets demonstrate an indirect effect on the sustainable livelihoods of the Bajo in the Tomini Bay Coast, whereas physical assets do not yield a significant impact. This supports the research hypothesis that natural assets, social assets, financial assets, human assets, and physical assets, both directly and indirectly through the mediation of community capacity, significantly affect the sustainable livelihoods of the Bajo tribe.

The sustainable livelihood approach illustrates the activities of communities, encompassing the capabilities, assets, and actions necessary for a means of living (Saputra *et al*., 2019). Consequently, assets such as natural, human, social, financial, and physical assets provide critical benefits that enhance sustainable livelihoods. Various asset types-specifically natural, social, financial, and human-significantly influence the development of community capacity in the Tomini Bay Coast, Gorontalo. Natural and social assets directly contribute to the enhancement of community capacity, which, in turn, positively influences the governance of sustainable livelihoods among the Bajo tribe. Although physical assets show an insignificant impact, their potential warrants further exploration. The significance of community capacity development as a mediator that strengthens the relationship between assets and sustainable livelihood governance highlights the necessity for greater focus on enhancing sustainability (Wijayanti *et al*., 2016; Nugroho and Murtasidin, 2023). These findings are expected to serve as a foundation for stakeholders to formulate more effective policies and programs aimed at improving community welfare and preserving the environmental integrity of the Bajo tribe in the Tomini Bay Coast.

The Bajo tribe in Torosiaje, Pohuwato Regency, and Tilamuta, Boalemo Regency, demonstrates integrated sustainable livelihood practices that align with their marine environment. In Torosiaje, the Bajo rely on fish capture and seaweed farming, employing environmentally friendly fishing methods to maintain the sustainability of marine resources. The community is also actively involved in coral reef conservation and the maintenance of marine ecosystems. Meanwhile, in Tilamuta, the Bajo tribe has developed community-based ecotourism that capitalizes on the natural beauty and local culture, thereby attracting tourists and supporting the local economy. Both cases exhibit a strong interconnection between social, economic, and environmental aspects of life, making sustainable livelihoods an integral part of the community's cultural identity. Thus, these two communities not only uphold the welfare of their members but also contribute to environmental preservation in their respective regions.

Conclusions and Recommendations

The sustainable livelihoods of the Bajo tribe on the Tomini Bay Coast require serious attention and strategic follow-up actions. Based on research

findings, the socio-economic characteristics of the Bajo tribe inhabiting the Tomini Bay Coast of Gorontalo Province indicate that they have an average age of 39.87 years, with 68.26% having attained only elementary school education. In contrast, 7.30% of respondents have attained higher education, holding bachelor's degrees. The primary occupation among the Bajo tribe is fishing, accounting for 72.75% of respondents. Regarding household expenditures, 44.26% is allocated to food and 55.74% to non-food items.

The community capacity development of the Bajo tribe in the Tomini Bay Coast of Gorontalo Province shows an average score of 80.25%, categorized as fairly good. This indicates a strong potential in terms of community spirit, member commitment, problem-solving ability, and access to resources. Therefore, these results suggest that with continued strengthening, through mentoring, training, or supportive policies for community self-reliance, this capacity can be further enhanced toward an optimal level in promoting sustainable livelihoods based on natural assets, social assets, financial assets, human assets, and physical assets.

Natural assets, social assets, financial assets, and human assets have a direct and significant positive influence on the community capacity development of the Bajo tribe in the Tomini Bay area of Gorontalo Province, while physical assets have a positive but not significant effect. Community capacity development, as a mediating variable, has a positive and significant effect to sustainable livelihoods of the Bajo community. Furthermore, natural assets and financial assets have both direct and indirect (through community capacity development) positive and significant effects to sustainable livelihoods. Social assets and human assets have a direct negative and insignificant effect but an indirect positive and significant influence through community capacity development. Meanwhile, physical assets have a direct negative and insignificant impact and an indirect positive but insignificant influence on sustainable livelihood governance.

To promote the sustainable livelihoods of the Bajo community on the Tomini Bay Coast, the active involvement of various stakeholders in collaborative efforts is essential. The community needs to participate in training and education to enhance both individual and collective capacity, as well as to strengthen internal solidarity in managing natural resources. Local governments are expected to improve access to basic infrastructure and implement empowerment programs that expand access to capital and resources. The central government must formulate inclusive sustainable policies and allocate specific budgets for community capacity development. Non-governmental organizations (NGOs) are expected to provide intensive assistance and advocate for the protection of the Bajo community's rights over natural resources. Academics and researchers play a vital role in developing applicable sustainability models and establishing strategic partnerships with communities and governments. The private sector is also encouraged to contribute through investments and Corporate Social Responsibility (CSR) programs that support structured and sustainable community capacity strengthening.

The strength of this research in its comprehensive exploration of various asset forms-including natural, social, financial, human, and physical assets-pertaining to community capacity development and its influence on the governance of sustainable livelihoods among the Bajo. This understanding provides valuable insights into the sustainable livelihoods of the Bajo tribe in the Tomini Bay Coast, which faces significant challenges requiring immediate solutions. An examination of these various assets and community capacity enhances the theoretical framework related to the Bajo tribe, community capacity, and sustainable livelihoods. Consequently, this research offers guidance for intervention strategies aimed at improving the sustainable livelihoods of the Bajo.

However, this study has limitations in examining the direct impacts of the various forms of assets held by individuals in supporting the sustainable livelihoods of households within the Bajo tribe. Future research is warranted to assess the effectiveness of different asset forms on the sustainable livelihoods of Bajo households. Additionally, future studies could investigate how Bajo households can effectively manage their existing assets to bolster their resilience against various life challenges. By conducting targeted studies on the assets within the household context of the Bajo tribe, subsequent research can provide a more nuanced understanding of the tribe's efforts to enhance the governance of sustainable livelihoods amidst social, economic, and environmental challenges.

Acknowledgements

This research was funded by the Ministry of Education, Culture, Research, and Technology of Indonesia through Penelitian Fundamental Reguler (PRF) 2023 as specified in the Decree of the Rector of Universitas Negeri Gorontalo No.: 062/E5/PG.02.00.PL/2024 under Contract No.: 931/UN47.D1.1/PT.01.03/2024.

Novelty Statement

The novelty in this study is the use of SEM-PLS analysis to examine the extent of the role of the intervening variable of community capacity building in enhancing the influence of capital/assets in increasing the potential for sustainable livelihoods. Then the results were also obtained regarding the income and expenditure of the bajo tribe community.

Author's Contribution

Mahludin H. Baruwadi, Fitri Hadi Yulia Akib and Mohammad Zubair Hippy: Conceptualization, methodology, data curation, writing original draft, writing – review and editing.
Iin Susilawati Lantu, **Dewi Indrayani Hamin** and **Siti Rahmatia Machieu:** Data curation, supervision. writing original draft, writing – review and editing.

Generative AI or AI assisted technology statement
The authors declare that no generative AI was used in the creation of this manuscript.

Conflict of interest
No potential conflicts of interest relevant to this article are reported.

References

Adger, W.N. 2003. Social Capital, Collective Action, and Adaptation to Climate Change. Eco. Geo. J., *79*(4): 387–404. https://doi.org/https://doi.org/10.1111/j.1944-8287.2003.tb00220.x

Alfiady, T., A. Arifin and A. Arinanda. 2021. Strategi Dalam Mewujudkan Kehidupan Berjelanjutan (Sustainable Livelihood) Masyarakat Teupin Kuyun Kecamatan Seunedon Kabupaten Aceh Utara. J. Jurn., *10*(1): 121-132. https://doi.org/10.29103/jj.v10i1.4886

Almira, N.P.A.K. and N.L.P. Wiagustini. 2021. Cheng Yan 1, 2, Ding Li 1, 2Δ, Cao Binhua 1, 2, Liang Hao 1, 2, Li Yu 1, 2. Tjyybjb. Ac. Cn., 27(2): 635–637.

Apriantoro, M.S., V.S.R. Makin and M.N. Maarif. 2023. Islamic law perspective on the bajo indigenous people's marriage tradition in Adonara village. YUDISIA : J. Pem. Huk. Dan Huk. Islam., 14(1): 47-62. https://doi.org/10.21043/yudisia.v14i1.16666

Baiquini, M. 2007. *Strategi Penghidupan Dimasa Krisis*. Ideas Media Publisher, Yogyakarta, Indonesia.

Basri, L.O., I. Mudana and A. Rahman. 2017. The Negative Stigma Against the Bajo Tribe and its Impact on Local Culture: Study of the Bajo Tribe in Bungin Village of South Konawe. Asian Cult. Hist., 9 (2): 90-95. https://doi.org/10.5539/ach.v9n2p90

Bebbington, A. 1999. Capitals and Capabilities: A Framework for Analyzing Peasant Viability, Rural Livelihoods and Poverty. World Dev. J. 27(12): 2021–2044. https://doi.org/https://doi.org/10.1016/S0305-750X(99)00104-7

Brown, V.A. and J.A. Harris. 2014. The Human Capacity for Transformational Change. In The Human Capacity for Transformational Change. Routl. London., https://doi.org/10.4324/9780203107874

Butt, T.M., Q. Gao and M.Z.Y. Hussan. 2015. An Analysis of the Effectiveness Farmer Field School (FFS) Approach in Sustainable Rural Livelihood (SRL): The Experience of Punjab-Pakistan. Agric. Sci., 6(10): 1164–1175. https://doi.org/10.4236/as.2015.610111

Chamaratana, T., H. Daovisan and B. Promphakping. 2018. Transforming Informal Workers' Assets into Their Livelihoods: A Case Study of Garment Workers in the Lao PDR. Pert. J. of Soc. Sci. Hum., 26(3): 1419-1431.

Chambers, R., N.C. Saxena and T. Shah. 1989. To the hands of the poor: water and trees. To the Hands of the Poor: Water and Trees. Oxford IBH Pub. Co. Pvt. Ltd. New Delhi, India.

Chambers, R. and G.R. Conway. 1992. Sustainable rural livelihoods: practical concepts for the 21st century. IDS Disc. Paper, 296. https://opendocs.ids.ac.uk/opendocs/handle/20.500.12413/775

Chaskin, R.J. 2001. Building Community Capacity: A Definitional Framework and Case Studies

from a Comprehensive Community Initiative. Urb. Aff. Rev., 36(3): 291–323. https://doi.org/10.1177/10780870122184876

Ellis, F. 1999. Rural Livelihood Diversity in Developing Countries: Evidence and Policy Implications. *ODI* Natural Resources Perspectives. Overseas Development Institute, London, United Kingdom.

Hassan, A., S. Akhtar and M. Ishaq. 2024. Analysis of livelihood asset of agricultural households influencing livelihood strategies in Khyber Pakhtunkhwa Pakistan. Sarh. J. of Agri., 40(1): 54-63. https://dx.doi.org/10.17582/journal.sja/2024/40.1.54.63

Hukmiah. 2020. Community economic empowerment the bajo tribe is based on local potential (A case study in Bajoe village, east tanete riattang sub-district bone). Int. J. of Sci. and Tech. Resc., 9(4): 3327–3331.

Ibrahim, I., N. Mintasrihardi, M. Mas'ad, A. Herianto, J.A.M and K. Kamaluddin. 2020. Strategi Penghidupan Berkelanjutan Masyarakat Sekitar Amal Usaha Muhammadiyah Pada Masa Covid 19 Di Taliwang Sumbawa Barat. Justek : J. Sains dan Tek., 3(2): 46-54. https://doi.org/10.31764/justek.v3i2.3539

Kayadoe, A.S., W. Girsang and F.P. Adam. 2019. Modal sosial dan kesejahteraan kelompok tani di Negeri Soya Kecamatan Sirimau Kota Ambon. Agrilan: J. Agr. Kep., 7(2): 135-148. https://doi.org/10.30598/agrilan.v7i2.901

Kobi, W. and H. Hendra. 2020. Kajian Geografi Ekonomi: Studi Kasus Kondisi Sosial Ekonomi Masyarakat Suku Bajo di Popayato, Gorontalo. Jamb. Geo Educ. J., 1(1): 16–25. https://doi.org/10.34312/jgej.v1i1.4637

Kusumo, R.A.B., G. Kurnia, I. Setiawan and R. Tirtosudarmo. 2023. Migration and Farmer Household Livelihood Strategies: Factors Influencing the Decision to Migrate. Pert. J. of Soc. Sci. Hum., 31(1): 57-79.

Lahaji, L. and M. Obie. 2020. Local Wisdom of the Bajo Tribe and Its Acculturation on Islamic Sharia: a Case in Tomini Bay–Indonesia. Hum. & Soc. Sci. Rev., 8(1): 814–820. https://doi.org/10.18510/hssr.2020.8197

Lorensia, L., S. Yusuf and Rosmawati. 2021. Analisis pendapatan berdasarkan pola konsumsi nelayan jaring insang (gill net) di Desa Bajo Indah Kecamatan Soropia Kabupaten Konawe. Jur. Sos. Eko. Perkn., 6(3); 149–156. https://doi.org/10.33772/jsepi.v6i3.198

Lyson, T., C. Flora, J. Flora, J. Spears, L. Swanson, M. Lapping and M. Weinberg. 1993. Rural Communities: Legacy and Change. Cont. Soc. J., 22(1): 695. https://doi.org/10.2307/2074627

Maulidyna, A., B.S. Hartawan, H.N. Agustin, A.N. Irfan, A. Septiasari, R. Utina and A.D. Setyawan. 2021. Review: The role of local belief and wisdom of the Bajo community in marine conservation efforts. Int. J. of Bonorowo Wetlands., 11(1): 48–63. https://doi.org/10.13057/bonorowo/w110105

Muhammad, M. 2010. Dampak Permukiman Nelayan Terhadap Kehidupan Sosial Ekonomi Budaya Suku Bajo (Kasus Permukiman Nelayan Toronipa Khususnya Masyarakat Suku Bajo di Sulawesi Tenggara). Un. J. Ars., 1(1): 50–59.

Mukramin, S., S.A. Nulhaqim, W. Gunawan and M. Sulaeman. 2023. Homogeneity of Livelihoods of Bajo Tribe Fishermen: Analysis of Determinant Factors of Poverty and Local Economic Empowerment Strategies. Migr. Lett., 20(9): 1483–1493.

Natalia, A. and E.N. Maulidya. 2023. Aktualisasi Empat Pilar Sustainable Development Goals (SDGs) Di Perdesaan Kecamatan Natar Kabupaten Lampung Selatan. JIIP: J. Ilm. Ilmu Pemer., 8(1): 21–41. https://doi.org/10.14710/jiip.v8i1.16513

Nugroho, A.Y. and B. Murtasidin. 2023. Penghidupan Berkelanjutan dan Dinamika Batasan Penghidupan Masyarakat Miskin Perkotaan di Wilayah Kampung Tambora Jakarta. J. of Pol. Iss., 4(2): 89-98. https://doi.org/10.33019/jpi.v4i2.89

Nuraini, C. 2016. The intangible legacy of the Indonesian Bajo. Wacana: J. of the Hum. of Indonesia., 17(1): 1-18. https://doi.org/10.17510/wacana.v17i1.427

Obie, M. and L. Lahaji. 2020. Coastal and marine resource policies and the loss of ethnic identity of the Bajo tribe. Acd. J. of Int. Stud., 9(3): 147–155. https://doi.org/10.36941/ajis-2020-0050

Putra, D.F. and A. Suprianto. 2020. Analisis strategi penghidupan petani kopi Desa Medowo menggunakan pendekatan sustainable livelihood. JPIG (Jurn. Pend. dan Ilmu Geo), 5(2): 132-143. https://doi.org/10.21067/jpig.

v5i2.4773

Rahim, M., A. Basri and H. Fauzi. 2019. Identification of construction system and arrangement of bajo tribe settlement based on local wisdom and environmentally friendly. Int. J. of Geo., 17(64): 261-266. https://doi.org/10.21660/2019.64.ICEE4

Rahman, F. 2018. Literature of the Minority in South Sulawesi Endangered. Medwell J. Medwell Publ., 13(14): 820-825.

Rahman, F., H. Abbas, A.M. Akhmar and M.D. Tahir. 2023. The Men and the Sea: Cultural Preservation of Bajau People with their Traditional Practice in Bone Regency. J. of Pos. Psy. Well., 7(1): 820–835. http://journalppw.com

Samudin, M.T., H. Muhamad, R. Rosmawati, S. Mamar and A. Yani. 2019. Local Wisdom of Bajo Tribe in Utilizing Marine Resources. Int. J. of Eng. Lit. and Soc. Sci., 4(2): 497–499. https://doi.org/10.22161/ijels.4.2.45

Saputra, R.K.L.W., W.P. Wijayanti and D. Dinanti. 2019. Kajian Penghidupan Berkelanjutan (Sustainable Livelihood) di Kelurahan Pasawahan, Kabupaten Bandung. Plan. for Urb. Reg. and Env. J. (PURE)., 8(3): 265-274.

Suharto, E. 2017. Kebijakan Sosial Sebagai Kebijakan Publik. Alfabeta, Bandung, Indonesia.

Suryanegara, E. and I. Nahib. 2015. Perubahan Sosial Pada Kehidupan Suku Bajo: Studi Kasus Di Kepulauan Wakatobi, Sulawesi Tenggara. Maj. Ilm. Glo., 17(1): 67-78.

Susilowati, E. 2017. Etnis maritim dan permasalahannya. Sabda: J. Kaj. Keb., 7(1): 1-18. https://doi.org/10.14710/sabda.v7i1.13217

Threesa, T. And I. Budiarti. 2021. Modal Manusia, Modal Sosial, Dan Budaya Organisasi Pengaruhnya Terhadap Kinerja Karyawan (Studi Pada Perusahaan Pertambangan Di Indonesia). J. of Eco., Mang., Bus. Acc., 1(1): 117-129. https://doi.org/10.34010/jemba.v1i1.5025

Trinh, T.Q., R.F. Ranola, Camacho, L.D. and E. Simelton. 2018. Determinants of farmers' adaptation to climate change in agricultural production in the central region of Vietnam. Land Use Policy., 70 (1): 224-231. https://doi.org/10.1016/j.landusepol.2017.10.023

Wan Hassan, W.S. and D. Peters. 2020. The vulnerability of Bajau Laut as stateless people in Sabah. J. Kinabalu, 26(2): 183. https://doi.org/10.51200/ejk.vi.2771

Wang, M., M. Li, B. Jin, L. Yao and H. Ji. 2021. Does livelihood capital influence the livelihood strategy of herdsmen? Evidence from western china. Land J., 10(7): 1-22. https://doi.org/10.3390/land10070763

Wianti, N.I., A.H. Dharmawan and R.A. Kinseng. 2012. Kapitalisme Lokal Suku Bajo. Sodality: J. Sos. Ped., 6(1): 36-56. https://doi.org/10.22500/sodality.v6i1.5810

Wibowo, Y.A., L. Ronggowulan, A. Fatonah and R.A.A. Fajariyah. 2021. Membangun Masyarakat Tangguh Bencana Melalui Sosialisasi dan Edukasi Modal Sosial di Kabupaten Klaten. Abdi Geomedisain. J., 1(2): 68–78. https://doi.org/10.23917/abdigeomedisains.v1i2.198.

Wijayanti, R., M. Baiquni and R. Harini. 2016. Strategi Penghidupan Berkelanjutan Masyarakat Berbasis Aset di Sub DAS Pusur, DAS Bengawan Solo. J. Wil. dan Ling., 4(2): 133-152. https://doi.org/10.14710/jwl.4.2.133-152

Yaseen, M., M. Luqman, S. Abbas, U. Saleem, A.G. Ahmad and M.S. Aslam. 2023. Impact of climate change on agriculture: A case of farmers' perception in rural Punjab, Pakistan. Sarh. J. of Agri., 39(1): 269-277. DOI | https://dx.doi.org/10.17582/journal.sja/2023/39.1.269.277

Yassin, S. M., H.A.M. Shaffril, A. Hamzah and K. Idris. 2018. Assessing rural youth sustainable livelihood in Malaysia. Pert. J. of Soc. Sci. Hum., 26(1): 1-18.

Zikri, I. 2017. Social transformation and the change of community capacity of Post-Tsunami Aceh, Indonesia. Pert. J. of Soc. Sci. Hum., 25(3): 1297-1318.